Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-153. (Canceled)

154. (Currently Amended) A method of affecting biological processes in vivo comprising:

a) selecting an in vivo biological tissue comprising functional groups X;

b) ~~providing~~ applying a composition to said biological tissue, ~~comprising~~ the composition consisting essentially of a synthetic polymer and a drug, the synthetic polymer comprising poly(alkylene oxide) functionalized with multiple activated groups Y, where Y is reactive with X, wherein the synthetic polymer is not in admixture with any other synthetic polymer that is reactive with the synthetic polymer prior to applying the composition to the tissue or following applying the composition to the biological tissue; and

c) allowing ~~forming covalent bonds between~~ the synthetic polymer ~~and~~ to form covalent bonds with the biological tissue ~~by contacting the tissue with the composition of~~ under conditions where i) X reacts with Y and ii) biological processes in the vicinity of the tissue are affected by the drug. ~~, wherein the synthetic polymer is not in admixture with any other polymer that is reactive with the synthetic polymer.~~

155. (Original) The method of claim 154 wherein the biological tissue has undergone surgical trauma prior to being contacted with the composition of step b), thereby placing the tissue at risk of adhesion formation.

156. (Original) The method of claim 155 wherein the adhesion formation is an undesired by-product of abdominal surgery.

157. (Original) The method of claim 155 wherein the adhesion formation is an undesired by-product of cardiac surgery.

158. (Original) The method of claim 155 wherein the adhesion formation is an undesired by-product of spinal surgery.

159. (Original) The method of claim 155 wherein the adhesion formation is an undesired by-product of nasal surgery.

160. (Original) The method of claim 155 wherein the adhesion formation is an undesired by-product of throat surgery.

161. (Original) The method of claim 155 wherein the adhesion formation is an undesired by-product of breast implant.

162. (Currently Amended) The method of claim ~~155~~154 wherein the biological tissue has undergone surgical trauma prior to being contacted with the composition of step b), the surgery being performed to excise tumor.

163. (Original) The method of claim 162 wherein the surgery is breast surgery.

164. (Original) The method of claim 162 wherein the surgery is breast tumor lumpectomy.

165. (Original) The method of claim 162 wherein the surgery is brain surgery.

166. (Original) The method of claim 162 wherein the surgery is hepatic resection surgery.

167. (Original) The method of claim 162 wherein the surgery is colon tumor resection surgery.

168. (Original) The method of claim 162 wherein the surgery is neurosurgical tumor resection.

169. (Original) The method of claim 154 wherein tissue is the interior surface of a physiological lumen.

170. (Original) The method of claim 169 wherein the tissue is a blood vessel.

171. (Original) The method of claim 169 wherein the tissue is a Fallopian tube.

172. (Original) The method of claim 169 wherein the tissue has undergone balloon catheterization.

173-240. (Canceled)

241. (Previously Presented) The method of claim 154 wherein the synthetic polymer has 2-12 activated groups.

242. (Previously Presented) The method of claim 154 wherein the activated group comprises an electrophilic site.

243. (Previously Presented) The method of claim 154 wherein the synthetic polymer comprises the formula (polymer backbone)-$(Q\text{-}Y)_n$ wherein Q is a linking group, Y is an activated functional group, and n is an integer of greater than 1, and wherein Q is selected from the group consisting of $-G\text{-}(CH_2)_n-$ wherein G is O.

244. (Previously Presented) The method of claim 243 wherein the synthetic polymer comprises the formula (polymer backbone)-$(D\text{-}Q\text{-}Y)_n$ wherein D is a biodegradable group and is poly(alpha-hydroxy acid).

245. (Canceled)

246. (Previously Presented) The method of claim 245 wherein the poly(alkylene oxide) comprises ethylene oxide residues.

247. (Previously Presented) The method of claim 154 wherein the drug is a cell cycle inhibitor.

248. (Previously Presented) The method of claim 247 wherein the cell cycle inhibitor is a taxane.

249. (Previously Presented) The method of claim 247 wherein the cell cycle inhibitor is paclitaxel.

250. (Previously Presented) The method of claim 154 wherein the multiple activated groups of the synthetic polymer are thiol-reactive groups.

251. (Previously Presented) The method of claim 250 wherein the thiol-reactive groups are hydroxysuccinimidyl or succinimidyl carbonate.

252. (Previously Presented) The method of claim 154 wherein the multiple activated groups of the synthetic polymer are amine-reactive groups.

253. (Previously Presented) The method of claim 252 wherein the amine-reactive groups are hydroxysuccinimidyl or succinimidyl carbonate.

254. (New) The method of claim 154 further comprising, prior to applying the biological tissue, first combining the composition with a buffer having a pH of less than 6 to form a homogeneous solution; followed by raising the pH of the homogeneous solution to a pH of more than about 7.8.

255. (New) The method of claim 154 further comprising combining the composition with a buffer having a pH of less than 6 to form a homogeneous solution prior to applying the composition to the biological tissue; and raising the pH of the homogeneous solution to a pH of more than about 7.8 after applying the composition to the biological tissue.